

# PTSD and Women's Mental Health

Suzanne L. Pineles

National Center for PTSD, Women's Health Sciences Division  
Boston University School of Medicine



# Overview

- Describe key characteristics of women Veterans relevant to PTSD and reproductive health
- Share findings regarding the intersection of PTSD and reproductive health across the lifespan
- Review what we know about PTSD treatment during perinatal period
- Discuss potential clinical implications

Female users of VA healthcare are growing rapidly, doubling between 2000 – 2012.

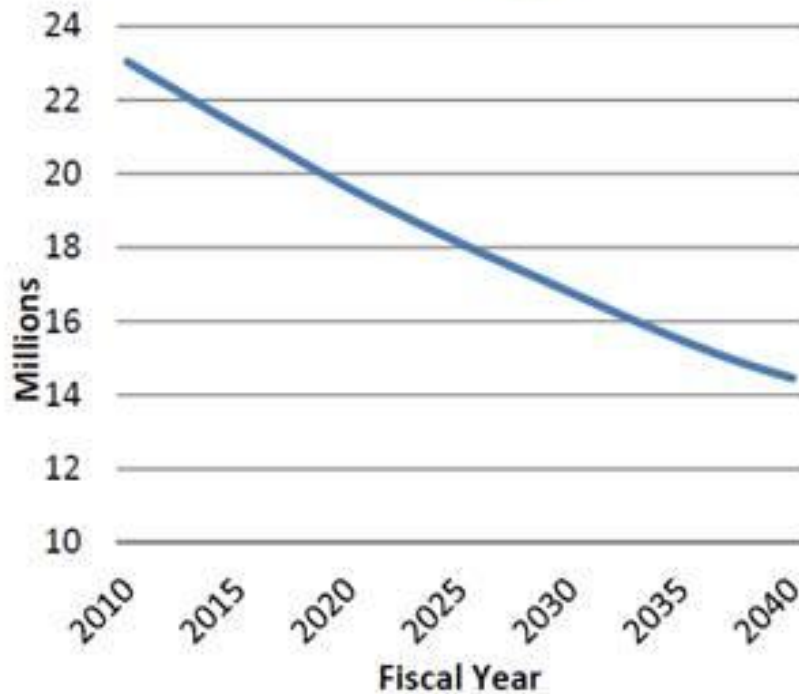


Women's Health Evaluation Initiative (WHEI) and the Women Veterans Health Strategic Health Care Group. *Sourcebook: Women Veterans in the Veterans Health Administration V1: Sociodemographic Characteristics and Use of VHA Care*, 2011. VHA Office of Finance Allocation Resource Center (ARC).

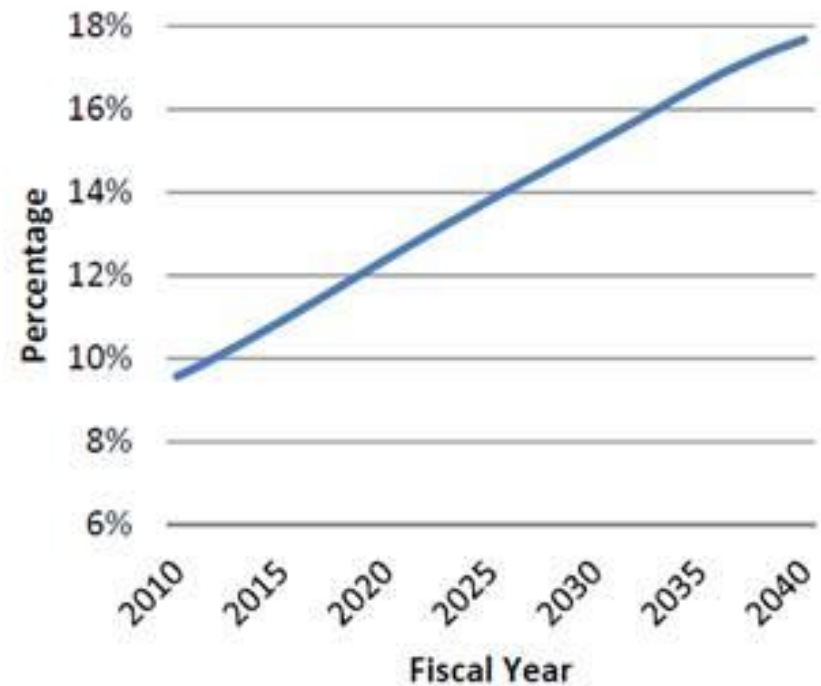
Slide courtesy of Amy Street

## Veteran Population Projections: FY2010 to FY2040

Projected Total Veteran Population  
2010 to 2040



Projected % of Female Veteran Population  
2010 to 2040



# Most Common Traumatic Experiences Among Women Veterans

- Experiences specific to military service:
  - Combat trauma
  - Military sexual trauma
- Experiences encountered in civilian life:
  - Childhood abuse
  - Sexual violence
  - Intimate partner violence



# Women Veterans have a heavy illness burden

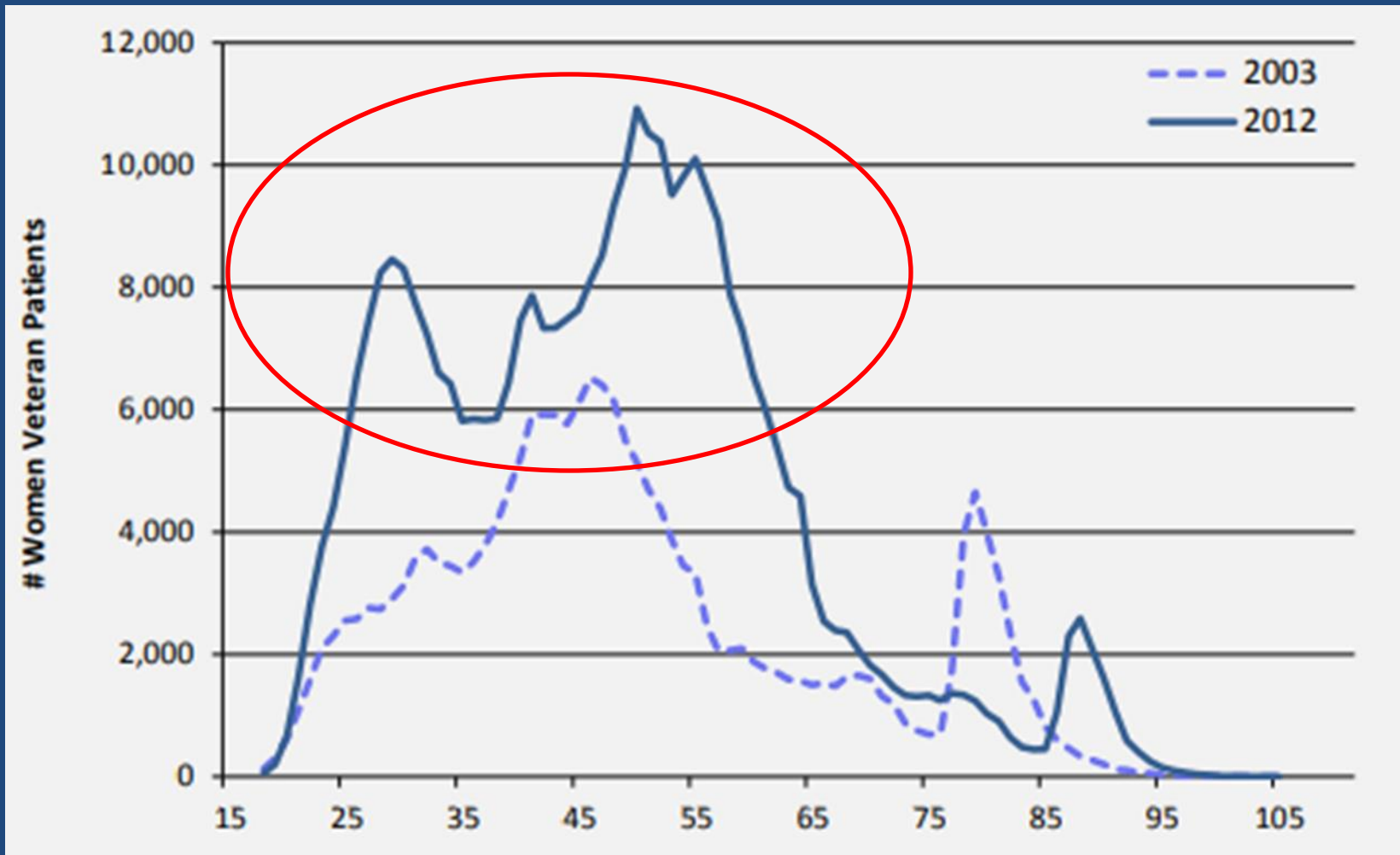
Top 5 Conditions	% of VHA Patients
1. Musculoskeletal	55.9%
2. Endocrine, Metabolic, or Nutritional	50.6%
<b>3. Mental Health or SUD</b>	44.5%
4. Cardiovascular	37.5%
<b>5. Reproductive Health</b>	31.2%

Women Veterans had similar or greater odds than men for 14 out of 17 conditions examined.

# Gender Differences in PTSD

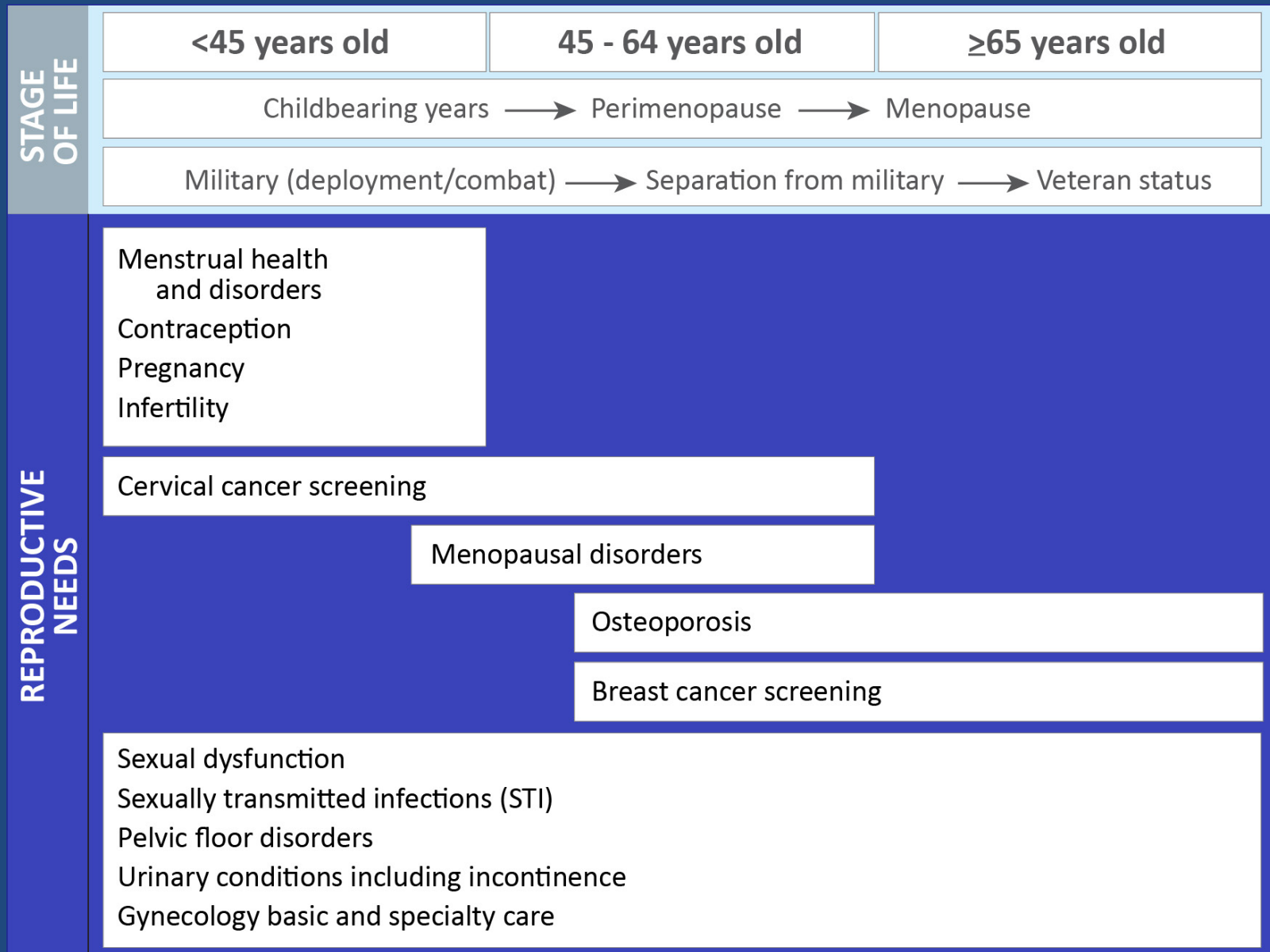
- Civilian women are 2-3X more likely to be diagnosed with PTSD as compared to men.
- However, for OEF/OIF/OND Veterans, men and women do not differ in their risk for PTSD.

# Age Distribution of Women Veterans



Women's Health Evaluation Initiative (WHEI) and Women's Health Services, Office of Patient Care Services.  
Sourcebook: *Women Veterans in the Veterans Health Administration V3. Sociodemographic, Utilization, Costs of Care, and Health Profile*, 2014.





Women's Health Services, Office of Patient Care Services. *The State of Reproductive Health in Women Veterans*, 2014.

# Gonadal hormones and psychopathology

- Periods of hormonal flux are associated with the initiation and/or exacerbation of mental health symptoms
  - Gender differences in trauma-related, mood, and anxiety disorders begin at puberty and end at menopause
  - Pregnancy and the postpartum period are associated with increases in depression and anxiety
  - Premenstrual exacerbation of symptoms
    - Women with PTSD have 8-fold increased risk for PMDD

# Menstrual disorders and Mental Health

## Service-Related Characteristics and Health Profile of Women Veterans Who Used VA in FY10 by Presence and Absence of Menstrual Disorders and Endometriosis

	Menstrual disorder or endometriosis	
	Absent	Present
<b>Service-related characteristics n (%)</b>		
OEF/OIF/OND	41,199 (15)	4,897 (21)
Service-connected disability (missing 762)		
None	121,121 (44)	7,191 (32)
0-49	77,848 (28)	8,133 (36)
50-99	60,593 (22)	6,245 (27)
100	14,266 (5)	1,233 (5)
<b>Health profile n (%)</b>		
≥1 Mental health condition <sup>h</sup>	108,913 (40)	11,518 (50)
≥1 Medical health condition <sup>h</sup>	186,799 (68)	15,757 (69)
Non-VA Medical Care <sup>i</sup>	49,785 (18)	6,419 (28)

<sup>h</sup> Mental health and medical diagnoses were identified using ICD-9-CM diagnostic codes from VA outpatient data from FY10. For details on the methodology and list of conditions, see Technical Appendix.

<sup>i</sup> Non-VA Medical Care including inpatient and outpatient encounters in FY10.

# PTSD and Pregnancy: Findings in VHA users

- Current PTSD was associated with increased risk for:
  - Gestational Diabetes
  - Preeclampsia
  - Spontaneous Preterm Delivery



# Mental Health and Pregnancy: Additional Findings in Civilians

- Women with depression, anxiety and PTSD during pregnancy at increased risk for:
  - Postpartum psychiatric disorders
  - Impaired maternal bonding
  - More negative physical health symptoms during pregnancy
  - Negative birth outcomes (e.g., preterm birth, low birth weight, cesarean delivery, NICU care)

# PTSD and menopause

- Women Veterans and non-Veterans had similar prevalence of vasomotor symptoms,
  - but Veterans reported more impact of symptoms
- Women VA healthcare users twice as likely to use Hormone Therapy (HT) as compared to general population.
  - Individuals with PTSD were more likely to be HT users than those without PTSD

# PTSD and hysterectomies

- Women VA healthcare users are more likely to have a hysterectomy as compared to the general population.
- Factors associated with increased risk for hysterectomy:
  - Vaginal Sexual Assault
  - PTSD (even after controlling for sexual assault)

# MH and preventive gynecological care

- Women with PTSD at increased risk for:
  - greater fear, embarrassment, distress, and pain during pelvic exam.
- Childhood sexual abuse predicts decreased likelihood of regular pap smear
  - Even controlling for PTSD



Farley et al., 2002; Weitlauf et al., 2008; 2010



# Gonadal Hormone Fluctuations Impact Processes involved in Exposure Therapy

- Estradiol and progesterone impact recall of extinction learning in laboratory studies

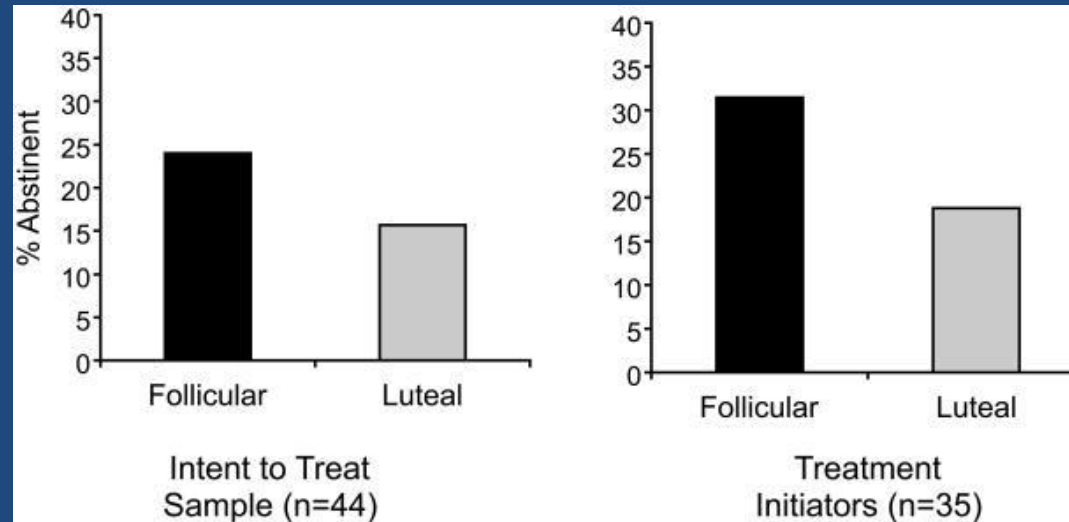
Milad et al., 2010; Pineles et al., 2016

# Exposure therapy and spider phobia



- Study of association between estradiol level and efficacy of exposure therapy
- High endogenous estradiol levels were associated with:
  - Lower post-treatment self-reported fear
  - Less post-treatment behavioral avoidance of spiders
  - Greater treatment efficiency

# Menstrual cycle and Tobacco Cessation



- Female smokers who initiated quit attempt during the follicular phase of the menstrual cycle were more likely to be abstinent than those who initiated during luteal phase

Carpenter et al., 2008

# CBT for Traumatic Stress during Perinatal Period

- 6 session CBT intervention conducted in NICU for women experiencing depression, anxiety or PTSD
  - Post treatment: decreased PTSD and depression symptoms

# Exposure Therapy for Anxiety Disorders during Pregnancy



- Exposure Therapy for blood and injury phobia during pregnancy (n=30)
- CBT for GAD or social anxiety during pregnancy or postpartum (n=10)
- In both studies, CBT was associated with reduced symptoms

Green et al., 2015; Lillecreutz et al., 2010

# How efficacious are psychopharmacological interventions for postpartum depression?

- In 6 out of 7 trials, there were no significant differences between SSRIs and other non-psychopharmacological treatments

# Psychopharmacology for depression during pregnancy— safety data

- Some studies link SSRIs to increased risk for birth defects
- Other studies have more reassuring outcomes
  - maternal and newborn genetic variants as possible risk mediators
- Diabetes and substance use are stronger predictors of birth defects than antidepressant use

# Psychopharmacology for postpartum depression— safety data

- Preeclampsia and gestational hypertension may be elevated among women who use SNRIs and TCAs
  - Effects for SSRIs were modest after adjusting for maternal depression
- Challenging to disentangle effects of maternal mood and/or medication exposure on fetus



# Barriers to mental health treatment during perinatal period

- Up to 86% of women do not receive mental health treatment during perinatal period despite clinical symptom levels
- Barriers include:
  - Preference for visits in OB clinic or through home visits
  - Preference for visits scheduled adjacent to OB appointments
  - Lack of knowledge about psychiatric disorders or treatment
  - Mental health stigma
  - Low acceptability of psychotropic medications during perinatal period
  - Lack of time or childcare

Ok, so how do we use this information clinically?

- Can we conceptualize OB/GYN appointments as a point of entry for mental health?
  - PTSD is associated with increased likelihood of: PMDD, menstrual cycle disorders, endometriosis, hysterectomies, and taking hormone replacement therapy during perimenopause and menopause.
  - Can we embed mental health providers into OB/GYN clinics?
  - Include gynecology in efforts to integrate mental health into primary care ?
  - If this is a point of entry, how can we facilitate transition into other mental health treatment?

- How can we help our OB/GYN colleagues provide trauma-informed care?
  - additional resources?
  - training?
  - consultation?

- Consulting with facility about physical barriers that may impeded preventive reproductive health care
  - if examinations occur in rooms typically used for men, encouraging thoughtfulness about educational posters and models

- Discussions with pts about their preventative gynecological care and barriers to scheduling and attending these appointments
  - Psychoeducation about expectations of wanting to avoid
  - Motivational interviewing might be helpful
- Normalization of premenstrual exacerbation of PTSD, depressive, and anxious symptoms
  - Perhaps encouraging “planning ahead” if this is relevant

- Important to assess and treat postpartum exacerbation of PTSD symptoms
  - Not just postpartum depression
- Encourage conversations and thoughtfulness regarding risks vs. benefits of trauma-focused therapy and/or medications during pregnancy
  - Heightened symptoms are also a risk for adverse pregnancy outcomes
- During pregnancy and postpartum period, being mindful of trying to link mental health appointments with other appointments

# Summary

- There are associations between PTSD, mental health symptoms, and reproductive health concerns throughout the lifespan.
- Integration of mental health and gynecology could improve adherence and outcomes in both domains





## PTSD Consultation Program FOR PROVIDERS WHO TREAT VETERANS

**(866) 948-7880 or [PTSDconsult@va.gov](mailto:PTSDconsult@va.gov)**



**Please enter your  
questions in the Q&A box  
and be sure to include your  
email address.**

***The lines are muted to avoid background noise.***



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*Listen to the  
lecture.*



*Return to  
TRAIN for  
evaluation.*



*Follow the  
directions to  
print  
certificate.*

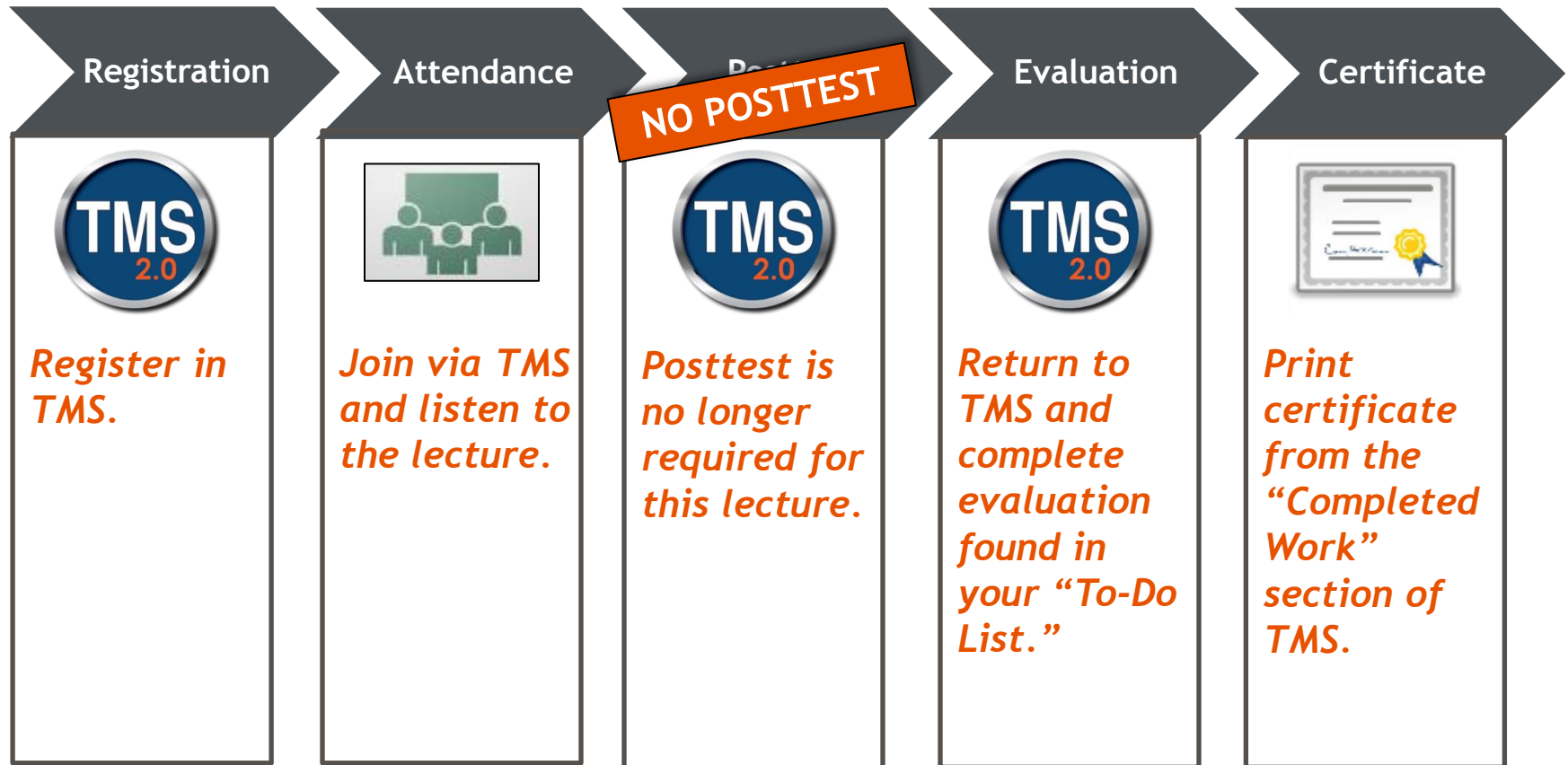
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## CEU Process (for VA employees)





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## UPCOMING TOPICS

***SAVE THE DATE: Third Wednesday of the Month from 2-3PM (ET)***

<b>September 19</b>	<b>PTSD and Women's Mental Health</b>	<b>Suzanne Pineles, PhD</b>
<b>October 17</b>	<b>Dementia Risk in Veterans with PTSD and a History of Blast-Related TBI</b>	<b>David Cifu, MD</b>

***The Lecture Series will continue into 2019.  
Additional topics will be announced soon.***

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